

**Amendments to the Claims:**

The following listing of claims will replace all prior versions, and listings, of claims in the application:

Please delete claims 1-17.

18. (New) Data recording device comprising micro-tips and a recording medium comprising a substrate whereon there is arranged a resistive layer, said resistive layer being covered by an active layer able to switch from a first electrical resistivity value to a second electrical resistivity value due to the action of a voltage applied between the micro-tips and a counter-electrode, device wherein at least one resistive element made of carbon is arranged between the active layer and the micro-tips, the resistive element having a controlled electrical resistivity comprised between the first and second electrical resistivity values of the active layer.

19. (New) Recording device according to claim 18, wherein the resistive layer is made of carbon.

20. (New) Recording device according to claim 18, wherein the resistive element comprises doping elements designed to adjust the electrical resistivity of the resistive element, the doping elements being chosen from boron and phosphorous.

21. (New) Recording device according to claim 18, wherein the resistive element has a thickness of about 1 nm.

22. (New) Recording device according to claim 18, wherein the resistive element is a layer arranged on the active layer.

23. (New) Recording device according to claim 18, wherein the resistive layer has an electrical resistivity comprised between the first and second electrical resistivity values of the active layer.

24. (New) Recording device according to claim 18, wherein the resistive layer has a thickness comprised between 5 and 50nm.

25. (New) Recording device according to claim 18, wherein the resistive layer comprises doping elements designed to adjust the electrical resistivity of the resistive layer, the doping elements being chosen from boron, phosphorous, silver and copper.

26. (New) Recording device according to claim 18, wherein it comprises a protective layer of carbon arranged on the resistive element.

27. (New) Recording device according to claim 18, wherein it comprises a thermally insulating layer arranged between the substrate and the resistive layer.

28. (New) Recording device according to claim 27, wherein the thermally insulating layer is formed by a crystallized germanium, antimony and tellurium compound.

29. (New) Recording device according to claim 28, wherein the crystallized germanium, antimony and tellurium compound is obtained by momentary heating of the partially achieved recording medium.
30. (New) Recording device according to claim 28, wherein the crystallized germanium, antimony and tellurium compound is obtained from a binary germanium and tellurium compound.
31. (New) Recording device according to claim 18, wherein the active layer is formed by a phase change material.
32. (New) Recording device according to claim 18, wherein the active layer has a thickness smaller than or equal to 50nm.
33. (New) Recording device according to claim 18, wherein the substrate being conducting, it constitutes the counter-electrode.
34. (New) Recording device according to claim 33, wherein the substrate is made of doped silicon.